

Abstract

The present invention provides a protein having high-affinity choline transporter activity which is important physiologically, a gene encoding the protein, and a method of screening a material promoting the high-affinity choline transporter activity with the use of the same, and the like. By examining high-affinity choline uptake activity of Na⁺-dependent transporter cDNA deduced from the genomic sequence of a nematode (*C.elegans*) in a *Xenopus* oocyte expression system, the cDNA (cho-1) of nematode high-affinity choline transporter is identified. Then the cDNA (CHT1) of rat high-affinity choline transporter is cloned from rat spinal cord by using the homology of a base sequence to this cDNA as an index. Similarly, the cDNA of human high-affinity choline transporter is cloned from human genome.